#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-016264 Address: 333 Burma Road **Date Inspected:** 16-Aug-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Yang Bai Qian. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

Subassembly, Bay 04, Deck Panel 13BW-DP3131-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3131-001: 5 tack weld location found compliant and no tack weld location found non-compliant.

Subassembly, Bay 04, Deck Panel 13BW-DP3137-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3137-001: 6 tack weld location found compliant and 2 tack weld location found non-compliant.

## WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Subassembly, Bay 04, Deck Panel 13BW-DP3130-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3130-001: 6 tack weld location found compliant and no tack weld location found non-compliant.

Subassembly, Bay 04, Deck Panel 13BW-DP3138A-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3138A-001: 3 tack weld location found compliant and no tack weld location found non-compliant.

Subassembly, Bay 04, 13CE, Deck panel to U-rib.

During Random Visual in process Inspection, this QA inspector observed ZPMC personnel carrying out Weld repairs after visual testing on Deck panel to U-rib welds of Deck Panel DP3103-001. Repair carried out with Flux core arc welding (FCAW). Welder is identified as 203805; ZPMC Quality Control Inspector (QC) is identified as Yang Bai Qian. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-FCM-REPAIR.

Welds & Approximate Y-locations of repair were;

W004 - 50, 1450mm.

W002 - 1450mm.

W181 - 50mm.

W182 - 50mm.

Subassembly, Bay 09, 14E, Continuity Stiffener inside U-Rib.

FCAW welding of weld complete penetration joint DP3158-001-224, 227; located on subassembly, Bay 09, 14E. Welders are identified as 059378; ZPMC Quality Control Inspector (QC) is identified as Chen Shigang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2233-TC-U4B-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations.

Comments

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 1500.042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Juvekar,Amit	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer